

REMARKS

The applicant thanks the Office for its acknowledgement of the allowable subject matter contained in claim 13. The applicant respectfully submits that the subject matter of the remaining claims is also allowable, when the cited references and the claimed invention are considered in full. The below remarks are intended to clarify the distinctions between the claimed invention and the cited references.

Claims Rejections - 35 USC §112 Second Paragraph

The Office rejected Claims 22 and 23 under 35 USC 112, second paragraph, as being indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 22 and 23 were rejected by the Office under 35 U.S.C. 101 because they allegedly recited a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example Ex parte Dunki, 153 USPQ 678 (Bd.App. 1967) and Clinical Products, Ltd. V. Brenner, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

The applicant respectfully submits that this cannot be the case, as claims 22 and 23 are both system claims dependant from claim 1, and which define structural characteristics of the claimed invention. Consequently, the claims is neither a method, nor does it inadequately describe a method. The applicant, therefore, respectfully requests that the Office withdraw its rejection of claims 22 and 23.

Claim Rejections – 35 USC § 103

The Office has quoted the statute from 35 USC 103(a), which is referenced herein. The Office has rejected claim 1-5, 8-9, 11-12 and 14-23 as being unpatentable over Gutjahr (US 6,151,854) in view of Nakazawa (US 5,238,721). Applicant has carefully considered the Office rejections and respectfully submits that the amended claims, as supported by the arguments herein, are distinguishable from the cited reference.

The applicant addressed a similar rejection in a related case, now allowed, Application No. 10/595695. In particular, the '854 reference was cited by the Office, in support of similar In contrast to the claimed invention, the cited references, either alone or in combination, fail to disclose a multilayer decoupling and sealing system. The '854 reference, as explained at length below, fails to disclose a sealing layer.

In contrast to the claimed invention, the '854 reference fails to provide a sealing layer incorporated in the layer construction of the '854 reference. In column 1 lines 30 – 37 of '854 reference is stated that the substrate on which the tiles are to be laid is sealed by alternative seals such as slurries or liquid films against penetration of water. In contrast to the claimed invention there is no disclosed component in the layer construction of the '854 reference which itself has water-resistant properties.

This failing of the '854 reference necessitates a completely different layer construction and a very expensive and time-consuming method for installing the layer construction of the '854 reference. Separate sealing of the substrate by two installers are required, one who seals the underground and one who lays the layer construction. In between of these two different operations the separate sealing layer must dry introducing several days of an interruption. This disadvantage of the system according to the '854 reference can also not be overcome by combining the upper layers of the '324 reference because there is no sealing functions of these layers.

In further contrast, the ‘854 reference does not show all functional layers needed for a correct and long lasting function of the layer construction according to the pre-sent invention. In the present invention all layers of the system are laid in only one operation to the ground and consequently no interruptions or additional drying times are introduced. Only one installer is required, and no preliminary preparation of the ground is required.

In further contrast to the claimed invention, the ‘854 reference is disclosed as being laid loosely on the ground because there is no functional layer for securing the nethermost layer to the ground. In column 1 in line 44 – 53 it is expressly said that the “profiled web is placed loosely on the upper surface of the sealed support plate” and therefore “cannot transmit any shear forces to damage the sealing layer”. As a result, such a layer system can only be laid on horizontal surfaces and cannot be used for vertical or any non-horizontal placement.

Unlike the claimed invention, the ‘854 reference discloses only the construction of the lattice-type structural element for drainage and anchoring purposes. In the ‘854 reference this element is a foil which is formed with recesses in which the mortar for fixing the tiles can enter from up-side and which can be formed with walls to which the mortar can fasten itself. In these walls and at the bottom of these recesses openings are left for guiding water coming from upside of the tiles to the sealed ground. The formation of the water guiding shapes is geometrically defined.

In contrast to the cited ‘854 reference, the claimed invention discloses a lattice-type structural element for guiding water that is formed by a plurality of rods laid in the form of a lattice and fastened together. Between each adjacent rods water can flow and space is provided for guiding water simultaneously. No connecting channels are provided for ensuring a balance of water flow between the individual channels of the ‘854 reference.

Furthermore, the channels disposed in the foils according to the ‘854 reference, which are opened to the top of the layer construction, are completely filled with the mortar which fixes the tiles. Therefore, only a low percentage of the area of the layers, in which the channels are opened

to the downwards sealing layer can guide water, whereas in the present invention nearly the complete area of the layer system beneath the anchoring layer can guide water.

In the '854 reference the folded or molded foil has a double function: guiding water in the channels opened to the ground and fastening the mortar in the channels opened to the upper side, into which the mortar is filled in during laying the tiles. Neither of these two functions can be optimized and the drainage system according to the '854 reference shows the above described disadvantages. Also because of the geometrically fixed shape of the channels the fastening of the mortar in the channels is not very good. The applicant draws the Offices attention to the cross-sections of the channels of the '854 reference that are illustrated in Figure 3 and Figure 4. The mortar itself will cement into the openings in the channel walls and close these openings, occluding water flow.

The Office alleges that the absence of the reinforcing layer from the '854 reference can obviously be obtained from the '721 reference. In particular, the office alleges that the layer 5 in the '721 reference works as a reinforcing layer according to the claimed invention. The applicant respectfully submits that this is incorrect.

The layer 5 of the '721 reference only functions as an elastic layer on which the tiles are laid so that any movement of the floor surface will not result in a movement of the tile layer. The tiles themselves are not fastened to the ground or to the layer 5 because the laying is carried out in form of a dry-type laying (see col. 1, lines 50-68 of the '721 reference). The '721 reference, in contrast to the claimed invention specifically discloses that the tiles can be easily taken away after a first laying and be rearranged or replaced by other tiles. This is only possible by omitting any fastening of the tiles to the ground and especially to the layer 5. Instead the tiles are laid in a compressed condition to each other by means of a joint material which surrounds the edges of the tiles and which is made from an elastic foamed resin material (col. 2, lines 44-62). By pressing the joint material of adjacent tiles together, the tiles are fixed to each other and in the end to the surrounding of the area in which the tiles are laid, for example the walls of a room or the like so that the tiles can not move laterally (col. 3, lines 15-17).

To prevent lateral movements of the tiles the layer 5, is also formed from an elastic and compressible material (col. 3, lines 17-25), on which the tiles are laid without any fixing. Because of the friction between the lower side of the tiles and the layer 5 laterally movements of the tiles are prevented. The layer 5, according to the '721 reference, therefore, is structurally and functionally different from the reinforcing layer according to the claimed invention.

Furthermore, the means of the decoupling disclosed by the '721 reference is different from that of the claimed invention. The decoupling according to the '721 reference is realized by omitting any fastening function between tiles and layer 5 so that movements of the ground may cause relative movements of layer 5 but not of the tiles because of the missing fastening function between layer 5 and the tile.

Therefore, layer 5 is clearly distinguished from a reinforcing layer of the claimed invention and as such fails to provide the teaching for which it is cited.

In contrast, the reinforcing layer of the claimed invention is incorporated into the mortar filled in between the anchoring layer and the lower side of the tiles and therefore is fastened strongly to the mortar and the tiles. The layer formed thereby is relatively thick and very stiff and the possibly relative movements between the ground and the tiles are compensated in the undermost layers of the system.

The upper layers of the claimed invention provide a very stiff layer construction for laying tiles with both a sealing and a decoupling function. The stiffness is mainly determined by providing a layer that can incorporate a sufficient amount of the filler material. In particular, because of the anchoring layer that is disposed on top and the reinforcing layer that is laid on top of and secured to it, it is ensured that joint mortar that is applied to the top face bonds completely with the layer system, thereby ensuring appropriate load-bearing capacity for the layer system.

The lattice-type structural element of the claimed invention permits a particularly simple construction of the anchoring layer that essentially determines the thickness of the decoupling and sealing system. The sealing layer ensures appropriate liquid-impermeable sealing against the substratum at the installation site, and also ensures mechanical decoupling in the case of floating installation.

As it is said in the description of the claimed invention (page 11 of the translation, last paragraph) the “significant advantage for the utilization properties of the decoupling and sealing system according to the present invention that, after the installation of the filler material, the anchoring layer is essentially completely filled with filler material and the reinforcing layer that is embedded in the hardened filler material performs a stiffening and reinforcing function for dispersing mechanical loads that are introduced from above, with the result that load dispersal is possible through significantly greater layer thicknesses than is the case with known decoupling and sealing systems since, in addition, the whole layer thickness of the anchoring layer helps to bear the loads and, at the same time, is reinforced by the reinforcing layer.”

Therefore, the ‘721 reference cannot be understood in the way the Office alleges would render the claimed invention as obvious in light of the cited ‘854 reference. The applicant therefore respectfully submits that the claimed invention is patentably distinct from the cited references. The applicant therefore respectfully requests that the Office withdraw its rejection of claims 1-5, 8-9, 11-12, and 14-23.

Claims 6, 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gutjahr (US 6,151,854) in view of Nakazawa (US 5,238,721) as applied to claim 1 above, and further in view of additional references. The Applicant notes that the Office does not allege these additional references address the inadequacy of the above cited references. As these claims depend from claims addressed above, the applicant respectfully submits that at least for the above reasons, these claims are also patentably distinct from the cited references and requests that the Office withdraw its rejection of these claims.

Applicant believes the above amendments and remarks to be fully responsive to the Office Action, thereby placing this application in condition for allowance. No new matter is added. Applicant requests speedy reconsideration, and further requests that Examiner contact its attorney by telephone, facsimile, or email for quickest resolution, if there are any remaining issues.

Respectfully submitted,

/Andrew P. Cernota, Reg. No. 52,711/

Cus. No. 24222
Vern Maine & Associates
PO Box 3445
Nashua, NH 03061-3445
Tel. No. (603) 886-6100, Fax. No. (603) 886-4796
patents@vernmaine.com

Vernon C. Maine, Reg. No. 37,389
Andrew P. Cernota, Reg. No. 52,711
David A. Rardin, Reg. No. 52,153
Attorneys/Agents for Applicant